The Economics of the Diaspora: Discrimination and Occupational Structure*

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1. Introduction

The economic structure of the Jewish community in the United States has at all times been considerably different from that of Americans as a whole. Jews tend to be more highly educated and to choose a narrower range of occupations than the entire population. The economic status of Jews has been noted by a number of economists—Marshall and Veblen and, more recently, Alchian and Kessel, Stigler and Becker.[1] One hypothesis that

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[1] Alfred Marshall, in his *Principles of Economics* (London: Macmillan Co., 1910), writes: "In every country, but especially in Germany much of what is most brilliant and suggestive in economic practice and in economic thought is of Jewish origin. And in particular to German Jews, we owe many daring speculations as to the conflict of interests between the individual and society and as to their ultimate economic causes" (p. 753). Notice that the subject chosen—"the conflict of interests between the individual and society"—is clearly a development of personal experience of the Jews. Thorstein Veblen tried to explain the same phenomenon. In "The Intellectual Pre-Eminence of Jews in Modern Europe" (in *The Portable Veblen*, ed. Max Lerner [New York: Viking Press, 1948]), he attributes the higher intellectual level to the very act of breaking with an ethnic world view. In his opinion, men who discard one tradition become skeptical of all "conventional realities." This alienated vantage point sparks the intellectual revolution. Also see Armen A. Alchian and Reuben A. Kessel, "Competition, Monopoly and the Pursuit of Money," in *Aspects of Labor Economics*, ed. H. G. Lewis (Princeton, N.J.: Princeton University Press, 1962); George J. Stigler and Gary S. Becker, "De gustibus non est disputandum," *American Economic Review* 67 (March 1977): 76–90; Howard M. Sachar, *The Course of Modern Jewish History* (New York: Dell Publishing Co., 1977); Arcadius Kahan, "A Note on Methods of Research on the Economic History of the Jews," in *For Max Weinreich on His Seventieth Birthday* (The Hague: Mouton & Co., 1964), pp. 173–82, and "Economic Opportunities and Some Pilgrims'

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has been advanced was that Jews, compared to the rest of the population, invested relatively more heavily in human than physical capital because human capital is more portable and difficult to confiscate than physical capital. A discriminated-against group, in this case Jews, which has had physical capital confiscated in the past might tend to take the probability of confiscation of an asset into consideration when making an investment. Further, a group which had been compelled to emigrate from a country might take the portability of an asset into consideration when making an investment in a new country, especially if it continues to face discrimination. Another hypothesis advanced to explain the occupational structure of Jews was that they faced some particular forms of discrimination, although not necessarily confiscation.

A difficulty with the aforementioned lines of argument is that pure taste difference—that is, the hypothesis that Jews like education relatively more than the general population—can lead (with a little elaboration) to the same implications about the observed economic structure of Jews as the above arguments. While the argument that there are systematic taste differences between Jews and non-Jews is not scientifically appealing, it is nonetheless plausible (Jews have different tastes for the same reason they are Jews). Thus, additional evidence on the effect either of deprivation of land and assets or of some particular forms of discrimination on a group's subsequent educational and occupational achievement is needed to discriminate between these alternative hypotheses. In this paper we look at the educational and occupational structure of the Arabs in Palestine during the Mandate and, subsequently, in the other Arab countries. Evidence is scarce; however, it appears that the Arab population in Palestine was fairly homogeneous with the Arab populations in the neighboring countries. Palestinians since 1948 in Arab countries seem to have developed an educational and occupational structure strikingly similar to that of Jews in the United States.[2] This leads to our conclusion that the Jewish/rest-of-population differences in economic structure cannot be solely attributed to systematic taste differences. Instead, changes in some relative prices explain this difference in behavior.

In Section 2 of this paper we provide the economic arguments around which we organize the discussion. In Section 3 we provide background evidence on the economic status of Jews in the United States, and then we discuss the evidence on Palestinians both before and after 1948. The conclusions follow.

Progress: Jewish Immigrants from Eastern Europe in the U.S., 1890–1914," *Journal of Economic History* 38 (March 1978): 235–51; Nathan Glaser, *American Judaism* (Chicago: University of Chicago Press, 1972), and "Social Characteristics of American Jews," *American Jewish Yearbook*, vol. 56 (1955); Simon Kuznets, *The Economic Structure of U.S. Jewry: Recent Trends* (Jerusalem: Hebrew University, 1972) (in Hebrew).

[2] This similarity has been noted in D. Peretz, A. M. Wilson, and R. J. Ward, *A Palestine Entity* (Washington, D.C.: Middle East Institution, 1970).

2. Investments in Human Capital and Sources of Uncertainty

A simple two-period model is first presented to illustrate both the effect of the existence of a probability of confiscation on the level of investment in human capital[3] and the rationale for different minority groups to behave in different fashions. Also, we shall show that this model is identical with a model where members of a group expect to be discriminated against, but they do not necessarily expect their assets to be confiscated.

Investment in human capital is considered to be time consuming,[4] and $0 < \lambda < 1$ is the proportion of the first period devoted to it. Utility depends only on present and future consumption, and so investment in human capital in the last period is identically zero.[5] Future earnings depend on the current investment in human capital through the function $f(\lambda)$, where $f' > 0$, and $f'' < 0$. The individual's objective is

$$\max EU(C_0, C_1) , \tag{1}$$

where C_0, C_1 are the consumptions in the respective periods and $U(\cdot,\cdot)$ is a linear utility function—that is, we assume risk neutrality. The second period's wealth constraint is

$$C_1 = [A + (1 - \lambda)Y_0 - C_0](1 + \tilde{X}) + f(\lambda) , \tag{2}$$

where $\tilde{X}$ is the return on nonhuman capital, a random variable, A is the initial wealth, and Y_0 is the earning capacity in the first period.

The nature of the randomness on nonhuman capital is the following: let r be the market rate of return on nonhuman capital which is known with certainty. If there is a group in the population which takes into consideration the probability of confiscation of their nonhuman capital, $1 - p$, then for the members of this group the return on such capital will be defined by[6]

$$\tilde{X} = \begin{cases} r \text{ with probability } p , \\ -1 \text{ with probability } 1 - p .^{7} \end{cases} \tag{3}$$

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[3] The model is a variation of a portfolio allocation method where one of the assets is human capital, and it is based on David Levhari and Yoram Weiss, "The Effect of Risk on the Investment in Human Capital" (*American Economic Review* 64 [December 1974]: 950–63).

[4] In a more general case the output of human capital per unit of time depends also on additional purchased inputs. However, the degree of substitution between these inputs is likely to be small.

[5] See Levhari and Weiss.

[6] There is an implicit assumption here that the size of the group is small when compared to the total population; otherwise, r would be affected.

[7] A slightly different formulation, in which

$$\tilde{X} = \begin{cases} r \text{ with probability } p , \\ 0 \text{ with probability } 1 - p , \end{cases}$$

yields the same qualitative results. The formulation in the text is appropriate for analyzing the effects of risk of confiscation of an asset, while the modification refers to the case where only the return on the asset is risky.

The fact that there is no uncertainty as to returns on human capital only means here that this type of capital cannot be confiscated.[8]

The maximization problem the household solves is the following:

$$\max L = E\Big(U\{C_0, [A + (1 - \lambda)(Y_0 - C_0)(1 + \tilde{X}) + f(\lambda)]\}\Big), \tag{4}$$

and the first-order condition with respect to λ is[9]

$$\frac{\partial L}{\partial \lambda} = E\{U_2[f'(\lambda) - Y_0(1 + X)]\} = 0 . \tag{5}$$

Assuming risk neutrality, we obtain

$$1 + E(\tilde{X}) = p(1 + r) = \frac{f'(\lambda)}{Y_0} . \tag{6}$$

The amount $f'(\lambda)/Y_0$ is the rate of return on human capital, while $p(1 + r)$ is the expected rate of return on nonhuman capital for individuals who take into consideration the probability of confiscation. For the rest of the population, for which this risk does not exist, the appropriate first-order condition implies

$$(1 + r) = \frac{f'}{Y_0} . \tag{7}$$

Therefore, when comparing two individuals with similar abilities (i.e., the same production function $f[\cdot]$), we find that the one facing a risk of property confiscation invests more in education than the other.

A similar result is obtained when, instead of making the distinction between human and nonhuman capital, the distinction made is between transferable and nontransferable human capital. By nontransferable human capital we mean production of skills specific to the country of origin. We assume that individuals allocate their time between λ_1, λ_2, and work, and future earnings are respectively $f(\lambda_1)$ and $g(\lambda_2)$, where the latter is the nontransferable human capital expected to be realized with probability $(1 - p)$. Then, from the first-order conditions we obtain

$$f'(\lambda_1) = pg'(\lambda_2) . \tag{8}$$

This means that members of a group facing a risk of confiscation invest more in "general" education (mathematics, foreign languages, etc.) and less in country-specific education than the rest of the population.

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[8] Although an environment which induces a positive probability of confiscation may also imply that individuals will take into consideration the costs of leaving the country, such uncertainty does not change the results of this model.

[9] The first-order condition with respect to C_0 is

$$EU_1 - E[(1 + X)U_2] = 0 ,$$

which is analogous with the classical Fisher condition. This result implies a higher level of first-period consumption in comparison to a situation where no uncertainty exists.

The model and its implications stay unchanged when instead of the probability of confiscation we assume that some groups in the population are discriminated against more in one market than in another. Then $0 < p < 1$ in (6) becomes an index of the degree of discrimination expected in the physical capital market. Its meaning can be, for example, that members of a discriminated-against group may expect that in order to induce people to buy from them in the market of goods they must sell at a lower price than their non-discriminated-against competitors. If goods are sold in a market in a long-run equilibrium position (i.e., zero economic profits), then members of this group know that they can be in the market only if their marginal cost would be lower. Assuming that education lowers marginal costs (e.g., by increasing managerial skills), the result in (6) follows. In this paper, since the evidence presented in the next section is still scarce, it will be impossible to attribute the difference between the occupational structure of Jews, Palestinians, and the rest of the population to one of the above hypotheses. But the evidence supports the hypothesis that this difference in occupational structure cannot be attributed solely to differences in taste. The changes in relative prices either due to discrimination or due to a positive probability of confiscation play a role here.

This model also implies that we cannot expect all discriminated-against groups to behave in the same way. Suppose that some group in the population is discriminated against in the labor market. A member of this group will expect his income to be $\alpha f(\lambda)$, where $0 < \alpha < 1$. Solving a maximization problem similar to the previous one (only now no risk of confiscation or discrimination in the physical capital market exists) yields the following condition:

$$\frac{1+r}{\alpha} = \frac{f'}{Y_0}, \tag{9}$$

that is, the members of this group will invest less in human capital. This result means that we cannot expect all minorities to react in the same way to discrimination: their response depends on the location of the risk. This model also implies that if members of a minority group are not horizontally discriminated against in all the labor markets, then their investment decisions will depend on the question of who discriminates more, employers or the consuming public. If the first group discriminates more, then we would expect more self-employment among minority groups than in the rest of the population. If a group expects to be discriminated against in both the labor and the capital market, then its expected income decreases, and so it will invest less in both markets.[10]

The results of additional theoretical models will be used in the later discussion. Drèze and Modigliani have analyzed the effects of uncertainty

[10] However, discrimination in all legal markets implies that entry into an illegal activity is relatively cheaper. See also Gary S. Becker, *The Economics of Discrimination* (Chicago: University of Chicago Press, 1957), for a different treatment of discrimination.

on investment in human capital.[11] If $Y_1 = f(\lambda,\mu)$, where μ is a random variable, then the following arguments will be taken into consideration. (*a*) This uncertainty is endogenous and can be eliminated if there is no investment in human capital. Assuming that some first-period wealth (human or nonhuman) is necessary in order to discover μ, we see that a group discriminated against in the labor market has less incentive to invest in obtaining this information. (*b*) Also, a distinction must be made between the two types of uncertainties μ may reflect.[12] First, there is imperfect knowledge of both the individual's characteristics and the quality of schooling. Second, there is imperfect knowledge of future demand and supply conditions. Children with more educated parents have more information on both their abilities and the random distribution facing them; therefore, education is relatively cheaper for them. This result means that even if the risk of confiscation is no longer taken into consideration, members of the once-discriminated-against group will invest more in human capital relative to the rest of the population due to the intergenerational effect. Also, the loss of land may play a special role in our argument. The normal work options in an agricultural community which might induce children to opt out no longer exist, and the relative price of staying in school is decreased. Also, emigration is considered as more probable because for those who own no land or other physical assets mobility is cheaper (cheaper also in the broader sense of less attachment to the old country).

To conclude: there are three parts in sequence over time when looking at the interaction between diaspora and the incentives to invest in human capital. (1) The diaspora that was actually experienced gives rise to the initial increase in human capital accumulation. (2) If people in diaspora continue to experience various forms of occupational discrimination, the investment in human capital–intensive occupations will continue —in particular, investment in non-country-specific forms of such capital, for discrimination and the probability of emigration are positively correlated. The data on the Palestinians are expected to fit these predictions. (3) If there is a decline in discrimination over time, and so the probability of emigration is no longer taken into consideration, the following predictions can be made: (*a*) due to the specific patterns of investment in human capital of the parents in the past, we would expect that the economic structure of a generation facing less discrimination will still be different from that of the rest of the population; more will be invested in education since education is cheaper for children with educated parents; (*b*) if employers rather than consumers discriminated in the past we should observe a decline in the percentage of self-employed among the discriminated group. The data on Jews in the United States are expected to fit these predictions, as we assume that Jews still invest more in education because of the circumstances they have faced in the past (stage 2 of our argument). Thus, the data on Jews in the United States reflect a combination of stages 2 and 3. In the absence of better empirical evidence on Jews (i.e., data from the remote past), their economic structure in the United States serves as a background against which we compare the changing economic structure of the Palestinians.

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[11] Jacques Drèze and Franco Modigliani, "Consumption Decisions under Uncertainty," *Journal of Economic Theory*, vol. 5 (December 1972).

[12] See Marc Nerlove, "On Tuition and the Costs of Higher Education: Prolegomena to a Conceptual Framework," *Journal of Political Economy* 80, suppl. (May 1972): S178–S218.

3. Evidence

The economic structure of the Jewish community in the United States is and has been considerably different from that of America as a whole. In this section the educational and occupational structure of Jews in the United States will be first examined in order to provide a background against which to compare the changing economic structure of the Palestinians in different Arab countries during the last 30 years. Then we look at the evidence on the Arab population during the Mandate. We show that this population was fairly homogeneous with the population in the rest of the Arab countries before 1948. Today, however, their education and occupational structure are significantly different, and the direction of the change in the occupational structure of Palestinians is toward the type of structure that the Jews in the United States have today.

First we consider the data on Jews in the United States. Two predictions made by the model presented in the previous section are that they will have a higher level of education and a greater percentage of the self-employed than the rest of the population. The first prediction is due to the higher level of education of parents, who once faced a greater risk of confiscation of physical capital than the rest of the population; the second prediction is due to our argument on the effects of discrimination. Data from four national surveys are cited: the 1957 government religious census; two nationwide surveys made, one in 1957–58 and the other in 1973, by the University of Michigan; and a survey done in 1955 by the National Opinion Research Center (NORC). The samples in the latter three surveys are much smaller than the one used in the religious census in 1957.[13] In addition, there are many useful community surveys in big and small cities, and the results are strikingly similar in every survey, whether national or local.

The labor force participation of Jews and non-Jews in the 1957 census is given in table 1. Table 2 gives an education distribution in 1973 for Jews and non-Jews. The occupational distribution from a number of sources and years is given in tables 3 and 4. The labor force participation for Jews below the age of 24 is surprisingly low, in comparison to that of non-Jews, and can probably be explained by Jews' higher participation in high schools and universities (as subsequently reflected in the 1973 data). This picture is by no means a sudden development; in 1901, a report of the U.S. Industrial Commission found that Jewish women had a lower labor force participation rate than women in the rest of the population (keeping income constant) and conjectured that the reason was the differential education given at home. We also find that as early as 1908 the proportion of Jews who were students was 8.5%, while the corresponding figure for the rest of the population was only 2%, in spite of the fact that the income of Jews was then lower than that of the rest of the population.[14] Tables 1

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[13] The data in the census are based on 1,100 Jewish families, out of a total of 35,000. Other reports with smaller samples provided the same picture. Note the small sample size of the 1973 survey (95 Jews). The size of the samples in the big cities (Boston, Los Angeles, San Francisco) was around 1,500, while in New York it was 2,100.

TABLE 1

LABOR FORCE PARTICIPATION IN THE UNITED STATES, 1957

		NON-JEWS	
AGE	JEWS	White Protestants (Urban)	Catholics (Urban)
14–17.....	0	33	25
18–24.....	51.7	76.5	79.3
65+......	48	35.9	31.6

SOURCE.—Census (1957).

NOTE.—55.1% of the Jewish population and 58.1% of the non-Jewish population were labor force participants.

TABLE 2

EDUCATION IN THE UNITED STATES, 1973

	Non-Jews	Jews
Cannot read or write..................	2.17	1.05
Grades 0–5..........................	3.17	1.05
Grades 6–8..........................	13.14	6.32
Grades 9–11.........................	19.05	6.32
Grade 12............................	24.93	10.53
Grade 12 plus nonacademic training....	7.99	7.37
Some college.........................	15.84	23.16
B.A.................................	7.70	29.47
B.A. plus advanced degree.............	3.36	11.58
N.A.................................	2.11	3.16

SOURCE.—*Michigan Panel Study of Income Dynamics* (1973).

NOTE.—Numbers represent percentage of group population.

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[14] See Glaser (n. 1 above); Yisrael Ellman, "The Economic Characteristics of American Jewry," in *Dispersion and Unity*, ed. Yehuda Adin (Jerusalem: World Zionist Organization, 1970), vol. 7 (in Hebrew); Irving Howe, *World of Our Fathers* (New York: Harcourt Brace Jovanovich, 1976). This information is useful to note, since it implies that even when their income was less than the average in the population Jews have invested more in human capital.

TABLE 3

OCCUPATIONAL DISTRIBUTION IN THE UNITED STATES (%)

A. JEWS

Occupation	1935 Detroit	1955 NORC*	1956 Detroit	1956 Greater Washington	1957 Census*	1958 Michigan*	1959 Los Angeles	1963 Greater Providence*	1963 Detroit	1964 Milwaukee*	1964 Canada County	1965 Boston	1966 Los Angeles
Professional....	7	17.6	16	37.8	20.3	19	24.9	20.7	23	22	34	32	35.6
Managers and proprietors...	31	36	49	24.5	35.1	32	30.5	40.7	54	36	31	27	23.5
Clerical and sales	32	...	14	20.8	23†	...	24.2	25.4	13	27	22	31	20.8
Blue collar......	30	...	21	9.7	...	...	...	11	10	10	11	10	...

B. NON-JEWS‡

Occupation	1940 Detroit	1950 Detroit	1956 Greater Washington	1960 Detroit	1963 Greater Providence	1964 Camden	1964 Milwaukee	1965 Boston
Professional..................	5	8	22	12	9.2	13	12	15
Managers and proprietors......	9	10	15	10	10.5	18	8	8
Clerical and Sales.............	17	15	17	16	15.5	17	26	27
Blue collar....................	69	67	40	62	45.8	47	54	50

SOURCES.—NORC survey (1955); Michigan survey (1957); local surveys from the respective Jewish community reports (see Yisrael Ellman, "The Economic Characteristics of American Jewry," in *Dispersion and Unity*, ed. Yehuda Adin [Jerusalem: World Zionist Organization, 1970], vol. 7).

* Survey distinguishes professions by other categories.

† Estimated.

‡ The data for non-Jews in the national surveys of NORC and the University of Michigan are the same as the ones in the 1957 census.

TABLE 4

OCCUPATIONAL DISTRIBUTION IN THE UNITED STATES, 1957 AND 1973

	Jews 1957	Non-Jews 1957	Jews 1973	Non-Jews 1973
Professional, technical	20.3	9.9	24.21	11.41
Managers, officials, proprietors, self-employed businessmen*	35.1	13.3	31.52	10.77
Clerical	8	6.9	8.42	9.26
Craftsmen, foremen	8.9	20	11.58	19.95
Operatives	10.1	20.9	7.37	19.25
Laborers, service†	2.4	13.8	3.16	13.87
Farmers	.8	2.5	1.05	2.29

SOURCES.—*Michigan Panel Study of Income Dynamics* (1973) and census (1957).

* In the Michigan panel study a distinction was made between "self-employed businessmen" and "managers and proprietors." The sum of these two numbers appears in the table. In 1973, 13.68% of Jews were self-employed businessmen, versus 4.08% in the rest of the population.

† In the census a distinction was made between "service workers" and "farm laborers."

and 2 and the aforementioned data thus show that Jews did invest and continue to invest more in education than the rest of the population.

The occupational distribution of Jews is consistently different from that of the non-Jewish population: there is persistently a much higher percentage of professionals, of managers and proprietors, and a much lower percentage of blue collar workers when compared with the rest of the population. This probably reflects two facts: (*a*) Jews obtain a higher general level of education and (*b*) a greater percentage of Jews are self-employed. Also, in researches carried out during the years 1938–40 the following data emerged: while the proportion of Jews in all occupations in Ohio was 2.6, their proportion in the professions of physicians, dentists, lawyers, teachers, pharmacists, engineers and architects was 4.8.[15]

A detailed occupational classification including the category "self-employed businessmen" is also available for 1973. This is reported in table 4. The results of four Gallup polls taken between 1963 and 1965 provide a picture similar to the one described by our tables: in a sample of 10,175 white heads of households, 14% of non-Jews were professional and semiprofessional, while 27.6% was the figure among Jews.[16] The increase in percentage of professionals and the decrease in the percentage of businessmen is consistent with the tendency shown in our tables in the local researches carried out between 1957 and 1967, as well as the 1957–73 national contrast.

Three conclusions can be drawn from tables 3 and 4: (*a*) the higher level of education of Jews can be inferred from the greater percentage of professionals and lower percentage of blue collar workers; (*b*) the differences between Jews and non-Jews in the percentage of managers can be attributed to employers' discrimination; expecting such discrimination, Jews had the incentive to invest in professions where they could be more easily self-employed; (*c*) the continuous decrease in the percentage of managers may reflect a continuous decrease in discrimination (i.e., stage 3 of our argument in the previous section).[17]

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[15] See Becker, p. 96.

[16] The sample included 341 Jews. This is higher than the percentages reported in the three national reports, 1957–58.

We turn now to show that the predictions made in the first section as to the level of education and the occupational structure of people in diaspora also fit the evidence on the Palestinians.

Information on the educational pattern of Palestinians is scarce. Although we have detailed data on schooling at the elementary, preparatory, and secondary levels of Palestinians living in camps registered by the United States, those represent only half of the Palestinians, and they are not necessarily representative of the population.[18] The professionals and highly skilled workers—the proportion of which interests us—either left the camps immediately after 1948 to go to countries in the Persian Gulf, Europe, the United States, etc., or were Christian Palestinians, who were relatively more educated in 1948, but received citizenship in Lebanon in 1948 and no longer appear in the statistics on Palestinians.[19] These exclusions make, however, the development of the education of refugees registered by the United States seem even more striking: after 1948, when the United Nations organized the schooling system for the refugees, the frequency of elementary and secondary students increased steadily from 10% in 1953 to 15% in the early sixties, 18% in the late sixties and early seventies, and 21.8% in 1977. These numbers are composed from two series: four-fifths of the students received education in the United Nations Relief and Work Agency (UNRWA) schools, while one-fifth received education from the local government.[20] This evidence is striking if we consider the same numbers for Egypt and Syria, where during the same period the student population increased roughly from 10% to 14%. By comparison, in 1948 the frequency of students in Palestine was 9%, and this rate was constant since the thirties—this is the information given by table 5. This percentage is roughly the same as the one which prevailed in the neighboring Arab countries at the same time: 8.6% in Egypt, 8.61% in

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[17] Also, from table 3 we see that the differences in occupational structure persist in big as well as in small cities (in the latter they are even accentuated). It is evident from the data that the fact that 96% of the Jews lived in big cities is not the explanation for the differences in the occupational structure, since the difference persists when we compare the non-Jewish population only with that of the Jews in the same city. Hence it is unlikely that urbanization would explain any significant percentage of the difference.

[18] See Yoram Ben-Porath, "Some Economic Characteristics of a Refugee Camp," in *Middle East Development*, Truman Center Publications no. 3 (Jerusalem: Truman Center, October 1968).

[19] See UNRWA Reports (1951–55).

[20] The numbers in the UNRWA reports are even higher, but one-tenth of the students in UNRWA schools were not Palestinians.

TABLE 5

PALESTINIANS' GENERAL LEVEL OF EDUCATION BEFORE 1948

Year	Population (Thousands)	Students (Elementary and Secondary)
1934.......	916	67,300
1935.......	941	76,760
1936.......	970	78,140
1937.......	993	87,500
1938.......	1,011	88,189
1939.......	1,043	94,123
1940.......	1,067	96,809
1941.......	1,098	96,928
1942.......	1,122	98,800
1943.......	1,160	105,368
1947.......	1,350	125,000

SOURCE.—*Statistical Abstract of Palestine*, 1944–45 (Jerusalem: Office of Statistics, 1946), pp. 185–86.

Syria.[21] The educational pattern in Jordan since the 1950s can in fact be used as an additional approximation (to the picture already provided by the Palestinian refugees) to indicate the changes in the education of Palestinians. Since more than half of Jordan's population after 1948 was of Palestinian origin, the higher level of education there may in part reflect the Palestinians' changed attitudes toward education. Jordan was the only Arab country which offered citizenship to all the refugees in 1948 regardless of religion, and the change in the educational structure in Jordan since then may serve as a downward-biased estimate for the educational choice of Palestinians. While in Jordan the Palestinians had the opportunity to continue their main previous occupation, agriculture—a choice that was not given in Egypt or Lebanon—the jump in the level of education can be attributed to optimizing behavior when facing new conditions. Qubain writes: "After the second World War, a tidal wave of desire for learning began. . . . There are several reasons for this development. The influx of Palestinian refugees into Jordan demonstrated clearly that knowledge is not a luxury, but a valuable capital, which one can take with him wherever he goes."[22] Tables 5 and 6 and the quotations above thus give the following information: the education of Arabs in Palestine was fairly similar to that of Arabs in Egypt, Jordan, and Syria until 1948. Between 1948 and 1970, however, the educational level of Palestinians

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[21] See *Education in the Arab States* (New York: Arab Information Center, 1966). Also notice that the comparison with Lebanon would not be appropriate since it had a different educational structure, and also before 1948 the level of education there was much higher than in the rest of the Arab countries and for Arabs in Palestine.

[22] F. I. Qubain, *Education and Science in the Arab World* (Baltimore: Johns Hopkins University Press, 1966), p. 306.

TABLE 6

A. GENERAL EDUCATION OF PALESTINIANS (1960, 1970) AND SYRIANS (1970)

	PALESTINIANS		SYRIANS
	1960	1970	1970
Illiterates	46.24	33.43	54.17
Literates	36.68	28.59	25.38
Primary	11.41	21.65	12.91
Secondary	6.25	14.69	6.8
University	.46	1.62	.7
Undetermined	.96	.02	.4

B. GENERAL EDUCATION OF PALESTINIANS, EGYPTIANS, AND SYRIANS (1969–70)

1969–70	Palestine	Egypt	Syria
Elementary	14.4	11.3	13.6
Secondary	5.6	3	3.8
University	1.1	.57	.57

SOURCES.—A, I. Abu Lughod, "Educating a Community in Exile: The Palestinian Experience," *Journal of Palestine Studies*, vol. 2 (1973); B, *Arab World File* (1977).

NOTE.—Numbers represent percentage of group population.

became significantly different from that of the Arabs in these host countries.[23]

We do not have the distribution according to professions of Palestinians. However, we do have some data which show the professions chosen by Palestinian students (either those from camps or those who lived outside the camps) at different universities, which we take as a proxy for the distribution of professions. When we compare these data with the professions chosen by Egyptian, Syrian, or other Arab students, a clear difference emerges. Palestinian students do not study agriculture, the humanities, or law. Their choice concentrates in the sciences, medicine, and engineering.

The data in tables 7 and 8 show the secular change in the professions Palestinians study and the differences in the fields they and the rest of the Arab students undertake. While between 35% and 60% of Lebanese students at the University of St. Joseph and Syrians at the University of Damascus chose law and political sciences, only 12% of the Palestinians did so. At the same time, while 9% of the Syrian and Egyptian students studied medicine, 56% of the Palestinians chose this field in the 1960s. Also, Palestinians study more engineering and sciences and less arts than

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[23] Notice that the difference cannot be attributed to the fact that the UNRWA schools charged no fees, since the elementary and secondary schools were free in Egypt, Syria, and Jordan for all the population.

TABLE 7

Distribution of Professions Studied at Universities in the Arab World by Palestinian Students Sponsored by UNRWA

	1954–55	1955–56	1959–60	1960–61	1962–63	1963–64	1970–71	1972–73	1973–74	1974–75	1975–76	1976–77
Agriculture	4	5	4	1.5	1.7	4	1.95	.4	.2	.3	.3	.3
Arts	22.7	20.6	11.6	0*	0*	0*	10.6	6.4	.2	0	.3	.9
Commerce and economics	4.7	4	2.0	1.5	.9	.6	5	2.4	.8	.9	...	...
Dentistry	.3	.5	.5	1.4	1.5	1.2	1.2	2.2	1.7	.5	...	...
Education	1.3	2.3	...	...	.3	...	...	...	...	...	...	...
Engineering	11.7	19.4	24.2	28.6	32.3	32.6	24.2	25	20	18.1	19.5	25.7
Law	4	2	...	...	...	...	...	...	...	...	...	...
Medicine	21	19.7	26.4	28.1	29.3	29.5	35.8	43.9	54.8	56.7	62.4	59.5
Pharmacy	1.3	.5	2.7	3.7	3.4	4.2	5.5	4.6	4	4	2.7	1.9
Science	15.6	13.7	21	21.2*	28.2*	25.4*	13.3	13.8	13.5	16	10.2	7

Source.—UNRWA Annual Reports.

Note.—Numbers are percentage of all students in the various fields.

* Arts and sciences are combined.

the rest of the population. These trends can be attributed to either our argument on the transferability of some assets or to discrimination in the host countries. We shall return to the issue of discrimination in the next section.

The subject of agriculture is worth considering in more detail: first, while Palestinians stopped studying agriculture, the proportion of Egyptian students who undertook this subject has increased during the same years.

TABLE 8

FIELDS OF STUDY

A. BY NATIONALITY*

Field	Lebanese	Jordanians and Palestinians†	Syrians	Others
	American University at Beirut, 1961–62			
Arts and science	62.9	67.7	63.1	58.4
Medicine	9.1	12.7	9.4	6.8
Science	...	...	...	...
Engineering	18.5	11.1	12.3	5.2
Agriculture	1.4	3	3.6	14.7
	University of St. Joseph, 1961–62			
Medicine	14.8	56	29.3	6.8
Law and political science	61.4	12	54.3	34.1
Engineering	8.2	10	5.2	2.2
Oriental arts	6.6	2	7.3	14.8

B. UNIVERSITY OF DAMASCUS‡

Field	1955–56	1956–57	1957–58	1958–59	1961–62	1962–63
Medicine	9.3	8.7	8.3	7.8	6.1	3.13
Law	33.6	31.6	35.6	32.7	38.3	37
Arts	22.95	26.1	29	26	28.8	31.9

C. EGYPT‡

Field	1959–60	1964–65
Arts	19.1	14
Law	18	14
Commerce	23.8	22.1
Science	5	8.4
Engineering	11.4	15.3
Medicine	9.7	11.3
Agriculture	6.6	10.6

SOURCES.—A and C, Jean-Jacques Waardenburg, *Les Universités dans le monde arabe actuel* (Paris: Mouton & Co., 1966); *Education in the Arab States* (New York: Arab Information Center, 1966).

* Numbers represent percentages of students at each university in the various fields.

† Two-thirds of this group were Palestinians.

‡ Numbers represent percentages of students in the various fields.

Also, in the first UNRWA report in 1951 we find: "Agriculture classes are perhaps the most important, as over half of the refugees used to earn their living from the land in Palestine, and will probably have to do so in countries where they settle" (p. 271). In the same report we find that 696 out of 2,232 students received technical instruction in agriculture. However, in the later reports (since 1956), where the number of students in each field of training is given, agriculture simply does not appear anymore. Instead, we find the following trades: metals, electrical, building, technicians, commercial, and paramedical. Table 9 shows the latest distribution, where we find that in technical schools only 1.5% of Palestinians study agriculture.

To conclude: the evidence on the higher level of education of Palestinians, their choice of occupations which are not country specific, but are transferable from one country to another, and their forsaking agriculture are all consistent with the predictions of the model presented in this paper.

4. Conclusions

This paper has examined the behavior of people in diaspora. It was shown that, when facing either the probability of loss of physical capital or some specific pattern of discrimination, these people have responded reasonably by investing in human capital. This different behavior of Jews and Palestinians was thus attributed to changes in relative prices rather than differences in taste.[24]

TABLE 9

VOCATIONAL AND TECHNICAL EDUCATION OF REFUGEE GRADUATES FROM UNRWA/UNESCO AND NON-UNRWA CENTRES, 1952 THROUGH 1973

Course	Graduates from UNRWA/ Unesco Centres	Graduates from Non-UNRWA Centres	Totals
Metal trades	5,068	341	5,409
Electrical trades	2,258	7	2,265
Building trades	2,253	38	2,291
Technical courses (including instructors)	1,653	88	1,741
Business, commerce, and secretarial	1,333	1,435	2,768
Paramedical, nursing, and midwifery	408	691	1,099
Agriculture	220	70	290
Dressmaking, clothing production, home management, and hairdressing	665	162	827
Infant leaders	170	...	170
Others	...	56	56
Total	14,028	2,888	16,916

SOURCE.—UNRWA Report (1973).

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[24] In fact, in our approach we followed Stigler and Becker (n. 1 above), who advocated explaining changes in behavior by changes in relative prices, rather than just assuming different tastes.

The patterns of discrimination against Jews (not allowing them to buy land, or being arbitrarily moved, or *numerus clausus*, etc.) are relatively well known. To give further support to our comparison between Jews and Palestinians, let us show that Palestinians have faced patterns of discrimination similar to those that the Jews have faced in the past. First we quote from the UNRWA report from 1952:

> The refugees are people apart, lacking for the most part status, homes, land, assets. . . . In Lebanon they cannot be issued working permits, and by law cannot hold jobs. In Egypt, they cannot receive agency relief and assistance unless they are physically located in the 5–25 miles of the Gaza Strip. In Syria, although they are permitted to work, they have not been offered citizenship; in Jordan, although possessing the full rights of Jordanians they have concentrated in such vast number in areas of such meager economic opportunity that in the four year period (1948–52) only an insignificant handful have managed to become self-supporting. [P. 3]

In a recent issue of the pro-Palestinian *Journal of Palestine Studies*, we find the following statement which shows that the picture given in 1952 has hardly changed: "Their movements in [Syria] were restricted. The laissez-passer which the Palestinians in all of Syria, Lebanon and Gaza were granted as travel documents became one of the instruments of their control. In Gaza all the Palestinians were severely restricted by the military authorities, etc."[25] In Markham's 1978 article, "Palestinians: People in Crisis," we find the following: "In Kuwait, where [the Palestinians] are 25% of the population, there is a 'numerus clausus' giving them 10% of the places in the universities, although out of the top 50 high school science students, 48 are Palestinians."[26] In the same article, we find that Palestinians are not allowed to buy shares in Kuwaiti companies, purchase property, open stores without a Kuwaiti partner, or vote in Kuwaiti unions. According to Ben-Porath, there were also signs of discrimination in employment on the part of the Jordanian government.[27]

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[25] E. Hagopian and A. B. Zahlan, "Palestine's Arab Population," *Journal of Palestine Studies* 3 (Summer 1974): 32–74; quotation from p. 58.

[26] T. M. Markham, *New York Times* (February 19, 1978). Also see M. Howe, *New York Times* (September 25, 1977). In these articles we find that in Jordan, although Palestinians hold citizenship and then constituted 50% of the population, they held one-fifth of the cabinet posts and were excluded from important roles in the army. They are kept out of the armed forces and police in Abu-Dabi. Also, the residents suffered from social discrimination: opposition to marriages with someone who may be "here today, gone tomorrow," contempt for landless people, etc. Notice that these are typical elements of discrimination against Jews.

[27] Yoram Ben-Porath carried out research on the economic structure of a refugee camp in the occupied territories. It is worth quoting the reaction of an uneducated parent speaking of his son: "It is better that he should study, then he can go out, earn a lot of money and support his parents" (n. 18 above). This changed attitude toward education, or the already higher level of education of parents (coming with higher incomes), is therefore the reason for expecting the persistence of differences in educational structure of Jews and the rest of the population, or Palestinians and the local Arab population—even if discrimination would slowly disappear.

To conclude: the discussion in this paper has these general implications. (*a*) It shows the relationship between legal status and the choices of economic agents. We have in fact shown that economic agents adapt their behavior to changes in their legal status (i.e., a change in relative prices). (*b*) As to the issue of discrimination, our model and the empirical results imply that there is no reason to expect all discriminated-against groups to behave in the same fashion—their response will depend on the location of the risk, or the specific restrictions on their legal status.[28]

Finally, we have to mention that additional groups fit the premises of our hypothesis—among them Armenians and the Chinese refugees. Current events seem to provide further evidence, as shown by the following quotation: "The Turkish invasion has drastically changed the Cypriot way of life. The shock of losing all their material possessions has instilled in the Greek Cypriot refugees an almost fanatic thirst for education 'because that's the only thing they can't take away from you,' as one refugee put it."[29]

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[28] See also n. 10.

[29] See N. Gage, *New York Times* (April 23, 1978).